## CLAIMS

1.- Door module, applicable to automobile vehicles, that has a door trim panel (9), a complete window winder subassembly (1), a lock subassembly (3, 10, 12) with its operating cables and controls for these drive operations, electric controls (8) for the said subassemblies, a loudspeaker (7), a motor for the window winder subassembly and other conventional items for units of this type, while also being equipped with the necessary appropriate waterproofing items, all in combination with a door inner liner (26) that receives all the items mentioned and which is characterised by,

- a door trim panel (9) in which the complete window winder subassembly (1) with its wiring (14), rails (17) and motor (13); the lock subassembly (3, 10, 12) with the corresponding cables (14); the handles of these locks; the general electrical wiring (4) and its controls; and the loudspeaker (7), are mounted previously, forming one unit,

- the mechanical subassemblies of the window winder and the lock are provided with relative movement in relation to the trim (9) before the assembly of the unit to the door,

- the trim (9) is provided with at least one portion (22), which is partially removable or detachable, also at least, in relation to the trim itself, and which when it is assembled covers at least an opening in the trim,

- a lower deflector (37) of the panel of the door trim (9) which is situated on an upper edge of an also lower portion of the door inner liner (26), with a portion of elastic, foam type material or similar, below the said deflector, with two support appendages (41, 42) which also protrude from the door panel, that procure a space between the two and whose ends are directed towards the door inner liner (26) in the area between the said door inner liner and the said panel, and situating a profile (39) made of rubber, foam or similar material in the space mentioned, with this profile having two ends (43, 44) that project towards the door inner liner at different heights, forming two lines of waterproofing on which there are the previously mentioned drain holes that define these lines of

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waterproofing, in that the both the deflector and the lower elastic portion connected to this deflector, the two support appendages and the profile between these appendages, form continuous lines between the door panel and the door inner liner.

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- 2.- Door module, in accordance with claim 1, characterised in that the trim subassembly is provided with pairs of protruding lugs (21) with holes (22) in them, in which the fins (20) of the L-shaped appendages (19) secured to the window winder rails fit loosely, in order to maintain the said rails on board the trim for its transport and until its final fixing into the door inner liner.
- 3.- Door module, in accordance with claim 1, characterised in that the lock (12) is connected to the interior opening control (3) by some kind of means (11), cable or wire, rod or similar, that modifies its position on board the trim from that of its transport position, on the trim, to that of assembly on the door inner liner, outside the trim.
- 4.-Door module, in accordance with claim 1, characterised in that the lock (12) can be connected to the external opening control by means of cable or rods.
- 5.- Door module, in accordance with claim 1, characterised in that the module has a portion (23) of the trim (9) subassembly, which is hinged to it and which covers, when it is assembled, at least an opening made in the said trim in order to have access to the fixing of the different items to the door inner liner.
- 6.- Door module, in accordance with claim 1, characterised in that it has a trim (3) provided with a waterproofing bead or line around all its outer peripheral area, that acts as a seal for the door inner liner itself, with this trim being equipped with at least one wide central removable or detachable boss (16) capable of allowing access for the unit to be bolted or screwed to the door inner liner and other assembly operations, following the prior assembly on this trim of a window winder with its kinematic chains and drive items, the lock (12) with its interior control handle and the cables for its operation, on an intermediate base plate made of ribbed sheet steel (30) acting as a reinforcement

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and support for the assembly to which the lock, in turn is attached, and including, apart from the trim, all the accessories associated with it, such as the side pockets or compartments, the loudspeaker grille, the loudspeaker, the wiring and drive units for the electrical systems, while also being able to include any other items, with the trim having sealing gaskets or joints at all the connections between the different components, and in that the trim is secured to the door inner liner by the same bolts or screws that fasten the rails to the trim itself.

- 7.- Door module, in accordance with claim 6, characterised in that lock (12) which is attached to the reinforcing base plate (30) slides on the latter in order to reach its final assembly position on the door once the rest of the module has been assembled to the said door.
- 8.- Door module, in accordance with claim 1, characterised in that the window winder unit which is included can have either a manual or an electrical drive system.
- 9.- Door module, in accordance with claim 1, characterised in that either a single or a double rail can be used for the window winder, doing away with the prolongation or extension of the window pane guides towards the interior of the door inner liner in the case of the double rail.
- 10.- Door module, in accordance with claim 1, characterised in that the deflector-lower elastic portion unit is capable of acting as the lower support for the trim or door module.
- 14.- Door module, in accordance with claim 1, characterised in that the waterproofing profile situated between the support appendages is replaced by a longitudinal bead or strip of adhesive between the ends of the said appendages and the door inner liner.
- 12.- Door module, in accordance with claim 1, characterised in that when the door trim or door module requires the use of bolts or screws at any point of the waterproofing perimeter, at least one metallic rivet is placed

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between the door inner liner and the door panel, together with the bolts or screws.

- 13.- Door module, in accordance with claim 1, characterised in that the deflector (37) has two inclined slopes in relation to the horizontal, that come together at a lower common meeting point in a protruding channel (50) that extends downwards and towards the door inner liner (26), possibly passing through a hole in the said door inner liner above its base for the draining of water towards this said base.
- 14.- Door module, in accordance with claim 1, characterised in that the motor (13) for the window winder system is positioned on the door trim (9), during transport, for later fixing to the door.
- 15.- Door module, in accordance with plaim 1, characterised in that the motor (13) for the window winder system is positioned on the door trim (9) as its final and definite location.
- 16.- Door module, in accordance with claim 6, characterised in that the ribbed reinforcing plate (52) has an approximately "X" shape and it is fixed to the door inner liner (26) by its four ends, two on the upper part and the other two on the lower, and in that the window winder system (17) is fixed to this said plate (52) at the points (51).
- 17.- Door module, in accordance with claims 6 and 16, characterised in that the ribbed reinforcing plate (54) has two parallel longitudinal sides (56) on which two edges (55) are formed, with these edges each being capable of allowing the incorporation of drive slides, integrating into one single multifunctional part all the components of a double rail window winder and fixing it to the door inner liner at the points (53).

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